

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

FRANCE TELECOM S.A.,
Plaintiff,

v.

MARVELL SEMICONDUCTOR INC.,
Defendant.

Case No. 12-cv-04967-WHO

**ORDER REGARDING TENTATIVE
FINAL JURY INSTRUCTIONS**

Re: Dkt. No. 188

The parties have filed proposed opening and final jury instructions. Dkt. No. 188. I previously issued an order regarding the opening instructions. *See* Dkt. No. 207. The parties agree on proposed final jury instructions 1-20, 22, 31, 39, and 46. The parties disagree on the remaining final jury instructions. Subject to any argument offered by the parties at the final pretrial conference, the Court intends to adopt the versions of the disputed final jury instructions listed below.

Per my prior order on the parties' motions *in limine*, France Telecom is precluded from presenting testimony, argument, or evidence on the doctrine of equivalents. *See* Dkt. No. 213 at 5-8. Accordingly, the jury will not be instructed on the doctrine of equivalents in either the preliminary or final jury instructions.

CONTENTS¹

Final Jury Instruction No. 21 Summary Of Contentions.....	4
Final Jury Instruction No. 23 Method Claims.....	5
Final Jury Instruction No. 24 Interpretation Of Claims	6
Final Jury Instruction No. 25 Infringement—Burden Of Proof.....	8
Final Jury Instruction No. 26 Direct Infringement.....	9
Final Jury Instruction No. 27 Infringement—Extraterritoriality.....	10
Final Jury Instruction No. 28 Literal Infringement	11
Final Jury Instructions Nos. 29-30 Infringement Under the Doctrine of Equivalents and Restrictions on the Doctrine of Equivalents.....	12
Final Jury Instruction No. 32 Inducing Patent Infringement.....	13
Final Jury Instruction No. 33 Contributory Infringement	15
Final Jury Instruction No. 34 Willfulness	16
Final Jury Instruction No. 35 Invalidity—Burden Of Proof	17
Final Jury Instruction No. 36 Invalidity—Prior Art.....	18
Final Jury Instruction No. 37 Invalidity—Obviousness.....	19
Final Jury Instruction No. 38 Invalidity—Improper Inventorship	22
Final Jury Instruction No. 40 Invalidity—Indefiniteness.....	23
Final Jury Instruction No. 41 Damages—Burden Of Proof.....	24

¹ The instructions are numbered according to the numbers assigned by the parties in their joint submission. If necessary, the instructions will be renumbered to correct for any gaps resulting from instructions not given or given in a different order than what was requested.

1	Final Jury Instruction No. 42 Damages—Reasonable Royalty—Definition	25
2		
3	Final Jury Instruction No. 43 Damages—Availability of Non-Infringing Alternatives	28
4	Final Jury Instruction No. 44 Damages—Extraterritoriality	29
5	Final Jury Instruction No. 45 Damages—Instances Of Direct Infringement.....	30
6	Final Jury Instruction No. 47 Damages—Laches Defense	31
7	Final Jury Instruction No. 48 Damages—End Of Damages Period.....	33
8		
9		
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FINAL JURY INSTRUCTION NO. 21**SUMMARY OF CONTENTIONS**

I will now again summarize for you each side's contentions in this case. I will then tell you what each side must prove to win on each of its contentions.

As I previously told you, France Telecom seeks money damages from Marvell Semiconductor for allegedly infringing the '747 patent by using a method within the United States that France Telecom argues are covered by claims 1 and 10 of the patent. These are the asserted claims of the '747 patent. France Telecom also argues that Marvell Semiconductor has actively induced infringement of these claims of the '747 patent by others and contributed to the infringement of these claims of the '747 patent by others. The methods that are alleged to infringe are turbo coding methods used for channel coding by certain Marvell Semiconductor communication processor chips that are incorporated into third party devices such as smart phones.

Marvell Semiconductor denies that it has infringed the asserted claims of the '747 patent and argues that, in addition, the asserted claims are invalid. Invalidity is a defense to infringement. Marvell Semiconductor also contends that France Telecom unreasonably and inexcusably delayed in filing this lawsuit, and in doing so prejudiced Marvell Semiconductor. This defense is known as laches.

Your job is to decide whether the asserted claims of the '747 patent have been infringed and whether any of the asserted claims of the '747 patent are invalid. If you decide that any claim of the patent has been infringed and is not invalid, you will then need to decide any money damages to be awarded to France Telecom to compensate it for the infringement. You will also need to make a finding as to whether the infringement was willful. If you decide that any infringement was willful, that decision should not affect any damage award you give. I will take willfulness into account later. Finally, you will also be asked to make a finding as to whether France Telecom unreasonably and inexcusably delayed in filing this lawsuit and in doing so prejudiced Marvell Semiconductor.

Court's analysis:

The Court adopts Marvell's proposed instruction. This instruction closely follows the Model Patent Jury Instructions for the Northern District of California. As discussed in my order regarding the opening jury instructions, France Telecom's proposed instruction recites an improper standard for infringement of method claims.

FINAL JURY INSTRUCTION NO. 23**METHOD CLAIMS**

Both of the asserted claims in this case describe methods, and are therefore referred to as “method” claims. Method claims recite a series of steps that comprise the patented invention. The word “comprises” in this context means “includes at least.” That is, if a method includes all of the steps that are described by a patent claim, the method is described by the claim even though it may also include ~~other or~~ additional steps. The two claims asserted in this case—claims 1 and 10—are both method claims. ~~A method can be embodied in a product, the sale of which constitutes use or sale of the method.~~

Court’s analysis:

This is the same as Opening Instruction No. 18. The Court again adopts France Telecom’s proposed instruction with the modifications above. The phrase “other steps” is confusing; “additional steps” is more accurate. As discussed in the order on the parties’ motions *in limine*, to infringe a method patent, each step must be practiced; the sale of a product which purportedly embodies the patented method is not sufficient.

FINAL JURY INSTRUCTION NO. 24**INTERPRETATION OF CLAIMS**

Before you decide whether Marvell Semiconductor has infringed the asserted claims of the '747 patent or whether those claims are invalid, you will need to understand the patent claims. As I mentioned, the patent claims are numbered sentences at the end of the patent that describe the boundaries of the patent's protection. It is my job as judge to explain to you the meaning of any language in the claims that needs interpretation.

I have interpreted the meaning of some of the language in the patent claims involved in this case. You must accept those interpretations as correct. For some terms, the parties agreed on a construction. You must also accept those interpretations as correct. My interpretation of the language should not be taken as an indication that I have a view regarding the issues of infringement and invalidity. The decisions regarding infringement and invalidity are yours to make.

Now I will read you the claim terms and their respective meanings:

Claim Term	Meaning
combining	calculating one or more values from two or more values
convolutional coding	coding that associates to each source data element at least one coded data element which is a combination of the source data element and at least one previous source data element
data element	a single unit of data
source [digital] data element	data element to be coded by the claimed method
systematic convolutional coding	convolutional coding where the output includes both the coded data and the current input data
temporally interleaving said source data elements	modifying the order of the source data elements

1 You have been given a list of these terms and their meanings. For claim terms for which I have
2 not provided you with any meaning, you should apply the claim term's plain and ordinary
3 meaning to a person of ordinary skill in the art.

4 The claims define the scope of the patent. You must read the claims in the same way when you
5 analyze infringement and when you analyze invalidity.

6 **Court's analysis:**

7 The Court adopts Marvell's proposed instruction, which is based on the Model Patent Jury
8 Instructions for the Northern District of California. France Telecom's proposed instruction
9 included a definition of the term "comprising" not agreed to by the Court and a statement arguably
10 suggesting that the Court has found that the written description requirement has been satisfied.
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FINAL JURY INSTRUCTION NO. 25
INFRINGEMENT—BURDEN OF PROOF

I will now instruct you on the rules you must follow in deciding whether France Telecom has proven that Marvell Semiconductor has infringed claim 1 or 10 of the ‘747 patent. To prove infringement of either claim, France Telecom must persuade you that it is more likely than not that Marvell Semiconductor has infringed that claim.

Court’s analysis:

The Court adopts Marvell’s proposed instruction. France Telecom’s proposed instruction relies on its incorrect statement of infringement of a method patent. The adopted instruction is consistent with the Model Patent Jury Instructions for the Northern District of California.

FINAL JURY INSTRUCTION NO. 26**DIRECT INFRINGEMENT**

A patent's claims define what is covered by the patent. A method directly infringes a patent if it is covered by at least one claim of the patent.

Deciding whether a claim has been directly infringed is a two-step process. The first step is to decide the meaning of the patent claim. I have already made this decision, and I have already instructed you as to the meaning of the asserted patent claims. The second step is to decide whether an accused direct infringer has used a method covered by an asserted claim of the '747 patent within the United States. If it has done so, it infringes. You, the jury, make this decision.

With one exception, you must consider each of the asserted claims of the patent individually, and decide whether the accused method infringes that claim. The one exception to considering claims individually concerns dependent claims, ~~such as claim 10~~. A dependent claim includes all of the requirements of a particular independent claim, plus additional requirements of its own. As a result, if you find that an independent claim is not infringed, you must also find that its dependent claims are not infringed. On the other hand, if you find that an independent claim has been infringed, you must still separately decide whether the additional requirements of its dependent claims have also been infringed. In this case, claim 1 is an independent claim and claim 10 is a dependent claim. Accordingly, if you find that claim 1 is not infringed, you must also find that claim 10 is not infringed. On the other hand, if you find that claim 1 has been infringed, you must still separately decide whether the additional requirements of claim 10 have also been infringed.

~~You have heard evidence about Marvell Semiconductor's commercial products and methods. However, in deciding the issue of patent infringement you may not compare the Marvell Semiconductor products to the figures in the patents. Your decision must be based on a comparison of the accused methods to the asserted claims.~~

Whether or not an accused direct infringer knew the method infringed or even knew of France Telecom's patents does not matter in determining direct infringement.

~~There are two ways in which a patent claim may be directly infringed. A claim may be "literally" infringed, or it may be infringed under the "doctrine of equivalents." The following instructions will provide more detail on these two types of direct infringement.~~

Court's analysis:

The Court's adopts Marvell's proposed instruction with the modifications indicated above. The underlined language is added to more clearly explain the impact of the independent and dependent claims at issue on the infringement analysis in this case. The stricken language is removed to avoid confusing the jury. Stating that the jury must base its decision on a comparison of the accused methods to the asserted claims adequately states the jury's responsibility; introducing language discussing the figures in the patents risks confusing the jury. The final paragraph is stricken because the Court has precluded France Telecom from introducing evidence or argument regarding the doctrine of equivalents.

FINAL JURY INSTRUCTION NO. 27
INFRINGEMENT—EXTRATERRITORIALITY

A U.S. Patent does not have extraterritorial effect. France Telecom must prove that Marvell Semiconductor engaged in conduct within the United States that infringed the ‘747 patent or actively induced or contributed to infringement of the ‘747 patent. Because the asserted claims in this case are method claims, each step of the asserted method claim must be practiced entirely within the United States in order for you to find infringement.

Court’s analysis:
The Court adopts an amalgamation of the parties’ proposed instructions. This instruction accurately instructs on the law without providing unnecessary and unduly suggestive language.

FINAL JURY INSTRUCTION NO. 28

LITERAL INFRINGEMENT

To decide whether Marvell Semiconductor's accused method literally infringes a claim of the '747 patent, you must compare the accused method with the patent claim and determine whether each and every requirement of the claim is included in that method. Every requirement of that method must be performed by a single person or entity. If so, then Marvell Semiconductor's method literally infringes that claim. If, however, Marvell Semiconductor's method does not have every requirement in the patent claim, that method does not literally infringe that claim. You must decide literal infringement for each asserted claim separately.

The word "comprises" in this instruction, and in claims 1 and 10 of the '747 patent, means "includes." That is, if an accused method *includes* steps that are identical to the steps described by claim 1 or claim 10 of the '747 patent, infringement is not avoided by the presence of *additional* steps in an accused method.

Court's analysis:

The Court adopts Marvell's proposed instruction. France Telecom's proposed instruction relies on its incorrect statement of infringement of a method claim.

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United States District Court
Northern District of California

FINAL JURY INSTRUCTIONS NOS. 29-30
INFRINGEMENT UNDER THE DOCTRINE OF EQUIVALENTS
AND RESTRICTIONS ON THE DOCTRINE OF EQUIVALENTS

[Not given]

Court’s analysis
Per my order on the motions *in limine*, France Telecom is precluded from presenting any evidence or argument regarding infringement under the doctrine of equivalents. The jury will therefore not be instructed regarding the doctrine of equivalents.

FINAL JURY INSTRUCTION NO. 32
INDUCING PATENT INFRINGEMENT

France Telecom argues that Marvell Semiconductor has actively induced another to infringe the '747 patent. In order for Marvell Semiconductor to induce infringement, Marvell Semiconductor must have induced another to directly infringe a claim of the '747 patent; if there is no direct infringement by a third party, there can be no induced infringement. This means that some third party must practice each and every step of the accused method within the United States; ~~mere evidence of United States sales of finished products containing the accused product is not enough.~~ As with direct infringement, you must determine whether there has been active inducement on a claim-by-claim basis.

In order to be liable for inducement of infringement, Marvell Semiconductor must:

- (1) have intentionally taken action that actually induced direct infringement by a third party;
- (2) have been aware of the '747 patent;
- (3) have known that the acts it was causing would infringe the patent; and
- (4) not have had a good faith belief the patent was invalid or not infringed.

If the four requirements just stated are not met, Marvell Semiconductor cannot be liable for inducement unless it actually believed that it was highly probable its actions would encourage infringement of the '747 patent, it believed the '747 patent to be valid, and it deliberately chose to avoid learning the truth. To prove inducement, it is not enough that Marvell Semiconductor was merely indifferent to the possibility that its actions might encourage infringement of a valid patent. Nor is it enough that Marvell Semiconductor took a risk that was substantial and unjustified.

~~One cannot induce infringement unintentionally. In order to establish active inducement of infringement, it is not sufficient that a third party directly infringed the claim. Nor is it sufficient that Marvell Semiconductor was aware of the act(s) by the third party that allegedly constitute the direct infringement. Rather, in order to find active inducement of infringement, you must find either that Marvell Semiconductor specifically intended the third party to infringe the '747 patent or that Marvell Semiconductor believed there was a high probability that the third party would infringe the '747 patent, but deliberately avoided learning the infringing nature of the third party's acts. The mere fact, if true, that Marvell Semiconductor knew or should have known that there was a substantial risk that the third party's acts would infringe the '747 patent would not be sufficient for active inducement of infringement.~~

Evidence that Marvell Semiconductor believed in good faith the '747 patent was not infringed or believed in good faith that the '747 patent was invalid may lead you to conclude that Marvell Semiconductor did not know that the accused acts constituted patent infringement.

Court's analysis:

The Court's adopts Marvell's proposed instruction with the modifications indicated above. The underlined language is added from the Model Patent Jury Instructions for the Northern District of California and more directly explains the concepts stated in the stricken paragraph which follows.

I disagree with France Telecom's proposed instruction that "[a]s a United States corporation, Marvell Semiconductor is deemed to have known of the Berrou patent at all times." *Sontag Chain Stores Co. v. Nat'l Nut Co.*, 310 U.S. 281, 295 (1942), cited by France Telecom, does not support that proposition. *Sontag* dealt with the defense of intervening rights, not indirect infringement. Moreover, the statement regarding constructive notice in *Sontag* was dicta and does not mean that issuance of a patent provides constructive notice for all purposes, such as indirect infringement. *See, e.g., Wang v. Palo Alto Networks, Inc.*, 12-cv-05579 WHA, 2014 WL 1410346, at *5-6 (N.D. Cal. Apr. 11, 2014); *Univ. of Colorado Found., Inc. v. Am. Cyanamid*, 880 F. Supp. 1387, 1406 n.4 (D. Colo. 1995) (The Supreme Court's dicta in *Sontag* . . . to the effect that the issuance of a patent is notice to the world for certain purposes, do not support the conclusion that such issuance is notice for all purposes, including the statute of limitations.") *aff'd in relevant part*, 196 F.3d 1366 (Fed. Cir. 1999). France Telecom cites no authority from the 70 years since *Sontag* was issued holding that issuance of a patent provides constructive notice for indirect infringement purposes. In contrast, recent Supreme Court authority confirms that actual knowledge is necessary for indirect infringement. *See Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S.Ct. 2060, 2068 (2011) ("[W]e proceed on the premise that § 271(c) requires knowledge of the existence of the patent that is infringed. Based on this premise, it follows that the same knowledge is needed for induced infringement under § 271(b)."). I likewise disagree with France Telecom's assertion that Marvell need not know of the alleged infringement in order to be liable for inducement. Such an instruction is contrary to the knowledge requirement for indirect infringement. *See, e.g., id.*

FINAL JURY INSTRUCTION NO. 33
CONTRIBUTORY INFRINGEMENT²

France Telecom argues that Marvell Semiconductor has contributed to infringement by another. Contributory infringement may arise when someone supplies something that is used to infringe one or more of the patent claims.

As with inducement, in order for there to be contributory infringement by Marvell Semiconductor, someone other than Marvell Semiconductor must directly infringe a claim of the '747 patent; if there is no direct infringement by anyone, there can be no contributory infringement.

If you find someone has directly infringed the '747 patent, then contributory infringement exists if:

(1) Marvell Semiconductor supplied an important component of the infringing part of the accused method;

(2) the component is not a common component suitable for non-infringing use; and

(3) Marvell Semiconductor supplied the component with knowledge of the '747 patent and knowledge that the component was especially made or adapted for use in an infringing manner.

A "common component suitable for non-infringing use" is a component that has uses other than in the patented method, and those other uses are not occasional, farfetched, impractical, experimental, or hypothetical.

~~As with induced infringement, evidence that Marvell Semiconductor believed in good faith that the '747 patent was not infringed or believed in good faith that the '747 patent was invalid may lead you to conclude that Marvell Semiconductor did not know that the accused acts constituted patent infringement.~~

Court's analysis:

The Court's adopts Marvell's proposed instruction with the modifications indicated above. As modified, this instruction mirrors the Model Patent Jury Instructions for the Northern District of California. Subsection (3) adequately states the requirement that Marvell have knowledge that the component was made or adapted for use in an infringing manner.

² The parties have briefed whether France Telecom's theory of contributory liability is properly in the case. I will address that issue at the final pretrial conference.

FINAL JURY INSTRUCTION NO. 34**WILLFULNESS**

In this case, France Telecom argues that Marvell Semiconductor willfully infringed the '747 patent.

If you have decided that Marvell Semiconductor has infringed, you must go address the additional issue of whether or not this infringement was willful. Willfulness requires you to determine that it is highly probable that Marvell Semiconductor acted recklessly.

To prove that Marvell Semiconductor acted recklessly, France Telecom must prove two things are highly probable:

The first part of the test is objective: France Telecom must persuade you that Marvell Semiconductor acted despite a high likelihood that its actions infringed a valid and enforceable patent. In making this determination, you may not consider Marvell Semiconductor's state of mind. Legitimate or credible defenses to infringement, even if not ultimately successful, demonstrate that Marvell Semiconductor was not reckless.

Only if you conclude that the Marvell Semiconductor's conduct was reckless do you need to consider the second part of the test. The second part of the test does depend on the state of mind of Marvell Semiconductor. France Telecom must persuade you that Marvell Semiconductor actually knew or should have known that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent. To determine whether Marvell Semiconductor had this state of mind, consider all facts which may include, but are not limited, to:

(1) Whether or not Marvell Semiconductor acted in accordance with the standards of commerce for its industry;

(2) Whether or not Marvell Semiconductor intentionally copied a product of France Telecom that is covered by the '747 patent;

(3) Whether or not there is a reasonable basis to believe that Marvell Semiconductor did not infringe or had a reasonable defense to infringement;

(4) Whether or not Marvell Semiconductor made a good-faith effort to avoid infringing the '747 patent, for example, whether Marvell Semiconductor attempted to design around the '747 patent; and

(5) Whether or not Marvell Semiconductor tried to cover up its infringement.

Court's analysis:

The Court's adopts Marvell's proposed instruction. However, the Court will present this instruction after the infringement instructions, as requested by France Telecom, rather than after the damages section, as requested by Marvell.

FINAL JURY INSTRUCTION NO. 35**INVALIDITY—BURDEN OF PROOF**

I will now instruct you on the rules you must follow in deciding whether Marvell Semiconductor has proven that claims 1 and 10 of the '747 patent are invalid. Before discussing the specific rules, I want to remind you about the standard of proof that applies to this defense. To prove invalidity of any patent claim, Marvell Semiconductor must persuade you that it is highly probable that the claim is invalid.

During this case, Marvell Semiconductor has submitted prior art that was not considered by the United States Patent and Trademark Office (PTO) during the prosecution of the '747 patent. Marvell Semiconductor contends that such prior art invalidates claims 1 and 10 of the '747 patent. In deciding the issue of invalidity, you may take into account the fact that the prior art was not considered by the PTO when it issued the '747 patent. Prior art that differs from the prior art considered by the PTO may carry more weight than the prior art that was considered and may make Marvell Semiconductor's burden of showing that it is highly probable that a patent claim is invalid easier to sustain.

Court's analysis:

The Court adopts Marvell's proposed instruction, which mirrors the Model Patent Jury Instructions for the Northern District of California.

FINAL JURY INSTRUCTION NO. 36

INVALIDITY—PRIOR ART

Prior art is a technical term relating to patents. In general, it includes things that existed before the claimed invention.

Prior art may include items that were publicly known or that have been used or offered for sale, publications, or patents that disclose the claimed invention or elements of the claimed invention. To be prior art, the item or reference must have been made, known, used, published, or patented either before the invention was made or more than one year before the filing date of the patent application. However, prior art does not include a publication that describes the inventor's own work and was published less than one year before the date of invention.

Court's analysis:

The parties agree, but for Marvell's proposed introductory sentence. The proposed introductory sentence is accurate and helps place prior art in context.

FINAL JURY INSTRUCTION NO. 37**INVALIDITY—OBVIOUSNESS**

Not all innovations are patentable. A patent claim is invalid if the claimed invention would have been obvious to a person of ordinary skill in the field at the time the claimed invention was first made. This means that even if all of the requirements of the claim cannot be found in a single prior art reference that would anticipate the claim or constitute a statutory bar to that claim, a person of ordinary skill in the field of communications and error correction coding who knew about all this prior art would have come up with the claimed invention.

The ultimate conclusion of whether a claim is obvious should be based upon your determination of several factual decisions.

First, you must decide the level of ordinary skill in the field that someone would have had at the time the claimed invention was first made. In deciding the level of ordinary skill, you should consider all the evidence introduced at trial, including:

- (1) the levels of education and experience of persons working in the field;
- (2) the types of problems encountered in the field; and
- (3) the sophistication of the technology.

France Telecom contends that the level of ordinary skill in the field was a computer scientist or engineer with a master's degree (or a bachelor's degree and equivalent on-the-job experience) in electrical engineering, computer science, or a related field with one to three years of experience in error correction technologies.

Marvell Semiconductor contends that the level of ordinary skill in the field was a person having at least (1) a Master's degree in electrical engineering or a related field (2) with at least three years' experience in communications.

Second, you must decide the scope and content of the prior art. In order to be considered as prior art to the '747 patent, these references must be reasonably related to the claimed invention of that patent. A reference is reasonably related if it is in the same field as the claimed invention or is from another field to which a person of ordinary skill in the field would look to solve a known problem.

Third, you must decide what difference, if any, existed between the claimed invention and the prior art.

In making these assessments, you should take into account any objective evidence (sometimes called "secondary considerations") that may have existed at the time of the invention and afterwards that may shed light on the obviousness or not of the claimed invention, such as:

- (1) Whether the invention was commercially successful as a result of the merits of the claimed invention (rather than the result of design needs or market-pressure advertising or similar activities);
- (2) Whether the invention satisfied a long-felt need;
- (3) Whether others had tried and failed to make the invention;
- (4) Whether others invented the invention at roughly the same time;
- (5) Whether others copied the invention;
- (6) Whether there were changes or related technologies or market needs contemporaneous with the invention;
- (7) Whether the invention achieved unexpected results;
- (8) Whether others in the field praised the invention;
- (9) Whether persons having ordinary skill in the art of the invention expressed surprise or disbelief regarding the invention;
- (10) Whether others sought or obtained rights to the patent from the patent holder; and
- (11) Whether the inventor proceeded contrary to accepted wisdom in the field.

Although you should consider any evidence of these factors, the relevance and importance of any of them to your decision on whether the claimed invention would have been obvious is up to you. However, there must be a sufficient nexus—that is, a connection—between any factor you consider and the claimed invention. If France Telecom has not shown that a factor is directly related to the claimed invention, this factor should not be considered in your obviousness determination.

A patent claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was independently known in the prior art. In evaluating whether such a claim would have been obvious, you may consider whether Marvell Semiconductor has identified a reason that would have prompted a person of ordinary skill in the field to combine the elements or concepts from the prior art in the same way as in the claimed invention. There is no single way to define the line between true inventiveness on the one hand (which is patentable) and the application of common sense and ordinary skill to solve a problem on the other hand (which is not patentable). For example, market forces or other design incentives may be what produced a change, rather than true inventiveness. You may consider whether the change was merely the predictable result of using prior art elements according to their known functions, or whether it was the result of true inventiveness. You may also consider whether there is some teaching or suggestion in the prior art to make the modification or combination of elements claimed in the patent. Also, you may consider whether the innovation applies a known technique that had been used to improve a similar device or method in a similar way. You may also consider whether the

1 claimed invention would have been obvious to try, meaning that the claimed innovation was one
2 of a relatively small number of possible approaches to the problem with a reasonable expectation
3 of success by those skilled in the art.

4 However, you must be careful not to determine obviousness using the benefit of hindsight; many
5 true inventions might seem obvious after the fact. You should put yourself in the position of a
6 person of ordinary skill in the field at the time the claimed invention was made and you should not
7 consider what is known today or what is learned from the teaching of the patent.

8 **Court's analysis:**

9 The parties largely agree to an instruction which tracks the Model Patent Jury Instructions for the
10 Northern District of California. The disagreement is based on France Telecom's reference to "the
11 problem that Claude Berrou confronted." That language risks confusing the jury. The adopted
12 language tracks the Model Patent Jury Instructions for the Northern District of California.
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FINAL JURY INSTRUCTION NO. 38**INVALIDITY—IMPROPER INVENTORSHIP**

Marvell Semiconductor can meet its burden of proving that the '747 patent is invalid by showing that the patent fails to name all actual inventors. This is known as the "inventorship" requirement.

Anyone who makes a significant contribution to the conception of one or more claims of the patent is an inventor. Persons may be inventors even though they do not physically work together or make the same type or amount of contribution, or contribute to the subject matter of each claim of the patent. However, merely helping with experimentation by carrying out the actual inventor's instructions or explaining the actual inventor's well-known concepts or the current state of the art does not make someone an inventor.

Proving improper inventorship requires corroboration by some independent evidence—for example, by some physical record such as a written notes, letters, invoices, notebooks, or a sketch or drawing or photograph showing the device, a model, or some other contemporaneous record.

Court's analysis:

France Telecom opposes this instruction but has not proposed an alternative. As discussed in my order on the parties' motion *in limine*, Marvell will not be precluded from presenting its inventorship defense. The proposed instruction is consistent with the Model Patent Jury Instructions for the Northern District of California.

FINAL JURY INSTRUCTION NO. 40
INVALIDITY—INDEFINITENESS

[Not given]

Court's analysis:

Indefiniteness is a legal issue for the Court. *See, e.g., Telcordia Technologies, Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1376 (Fed. Cir. 2010); *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1374 (Fed. Cir. 2008) (“Whether a claim reasonably apprises those skilled in the art of its scope is a question of law that we review de novo.”); *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1376 (Fed. Cir. 2001) (“determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims); *Apple v. Samsung*, Case No. 11-cv-01846 LHK (N.D. Cal. August 20, 2012) (Order Re: Indefiniteness) (denying proposed instruction on indefiniteness).

Accordingly, the Court will not issue Marvell's proposed instruction on indefiniteness. If necessary after the jury returns a verdict, the Court will address indefiniteness on a motion for judgment as a matter of law. *See, e.g., Funai Elec. Co. v. Daewoo Electronics Corp.*, 616 F.3d 1357, 1371 (Fed. Cir. 2010) (“The jury did not address this question [of indefiniteness], for the district court had reserved it to be resolved as a matter of law if infringement were found by the jury.”); *Aero Products Int'l, Inc. v. Intex Recreation Corp.*, 466 F.3d 1000, 1015 (Fed. Cir. 2006) (“As noted, after the jury trial the district court considered the legal issue of definiteness and held that claim 12 of the '726 patent was not invalid by reason of indefiniteness”).

FINAL JURY INSTRUCTION NO. 41**DAMAGES—BURDEN OF PROOF**

I will instruct you about the measure of damages. By instructing you on damages, I am not suggesting which party should win on any issue. If you find that Marvell Semiconductor infringed a valid claim of the '747 patent, you must then determine the amount of money damages to be awarded to France Telecom to compensate it for the infringement.

The amount of those damages must be adequate to compensate France Telecom for the infringement but no more. A damages award should put the patent holder in approximately the financial position it would have been in had the infringement not occurred, but in no event may the damages award be less than a reasonable royalty. You should keep in mind that the damages you award are meant to compensate the patent holder and not to punish an infringer.

France Telecom has the burden to persuade you of the amount of its damages. You should award only those damages that France Telecom more likely than not suffered. While France Telecom is not required to prove its damages with mathematical precision, it must prove them with reasonable certainty. France Telecom is not entitled to any damages that are remote or speculative.

Court's analysis:

The Court adopts Marvell's proposed instruction. France Telecom's proposed instruction omits the final two sentences. Those sentences accurately state the law, are helpful to the jury, and track the Model Patent Jury Instructions for the Northern District of California.

FINAL JURY INSTRUCTION NO. 42**DAMAGES—REASONABLE ROYALTY—DEFINITION**

A royalty is a payment made to a patent holder in exchange for the right to make, use or sell the claimed invention. This right is called a “license.” A reasonable royalty is the payment for the license that would have resulted from a hypothetical negotiation between the patent holder and the infringer taking place at the time when the infringing activity first began. In considering the nature of this negotiation, you must assume that the patent holder and the infringer would have acted reasonably and would have entered into a license agreement. You must also assume that both parties believed the patent was valid and infringed. Your role is to determine what the result of that negotiation would have been. The test for damages is what royalty would have resulted from the hypothetical negotiation and not simply what either party would have preferred.

A royalty can be calculated in several different ways and it is for you to determine which way is the most appropriate based on the evidence you have heard. One way to calculate a royalty is to determine a one-time lump sum payment that the infringer would have paid at the time of the hypothetical negotiation for a license covering all sales of the licensed product in the United States, both past and future. When a one-time lump sum is paid, the infringer pays a single price for a license covering both past and future infringing sales. At the time of the hypothetical negotiation, the parties would only know the past sales; they would not have known what future sales would be.

Another way to calculate a royalty is to determine what is called an “ongoing” or “running royalty.” To calculate an ongoing or running royalty, you must first determine the “base,” that is, the product on which the infringer is to pay. You then determine what amount per unit in dollars (or fractions of dollars) the parties would have agreed to in the hypothetical negotiation. Multiplying this amount by the number of products sold will provide the total damages.

An ongoing or running royalty differs from payment of an lump sum because, with an ongoing or running royalty, the licensee pays based on the number of actual licensed products it sells. For example, if the patent covers a nail, and the nail sells for \$1.00, you might find that the parties would have agree to a per unit royalty of 1 cent in a hypothetical negotiation. If the licensee sold 200 nails, the damages owed would be \$2.00 (200 times 1 cent). ~~Depending on the evidence, you may find that the ongoing or running royalty should be capped at a certain amount, regardless of the number of actual sales.~~

In determining a reasonable royalty, you may consider the following factors:

- (1) The royalties received by France Telecom for the licensing of the ‘747 patent, proving or tending to prove that an established royalty exists.
- (2) The rates paid by Marvell Semiconductor for the use of other patents comparable to the ‘747 patent.

- (3) The nature and scope of the license, as exclusive or nonexclusive, or as restricted or nonrestricted in terms of territory or with respect to whom the manufactured product may be sold.
- (4) France Telecom's established policy and marketing program to maintain its patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
- (5) The commercial relationship between France Telecom and Marvell Semiconductor, such as whether they are competitors in the same territory in the same line of business, or whether they are inventor and promoter.
- (6) The effect, if any, of selling the patented specialty in promoting sales of other products of Marvell Semiconductor, the existing value of the invention to France Telecom as a generator of sales of its nonpatented items, and the extent of such derivative or conveyed sales.
- (7) The duration of the '747 patent and the term of the license.
- (8) The established profitability of products, if any made under the patent, their commercial success, and the current popularity.
- (9) The utility and advantages of the patented property over the old modes or devices, if any, that had been used for working out similar results.
- (10) The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by the France Telecom, and the benefits to those who have used the invention.
- (11) The extent to which Marvell Semiconductor has made use of the invention and any evidence probative of the value of that use.
- (12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable business to allow for the use of the invention or analogous inventions.
- (13) The portion of the realizable profits that should be credited to the invention as distinguished from nonpatented elements, the manufacturing process, business risks, or significant features or improvements added by Marvell Semiconductor.
- (14) The opinion and testimony of qualified experts.
- (15) The amount that a licensor (such as France Telecom) and a licensee (such as Marvell Semiconductor) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

No one factor is dispositive and you can and should consider the evidence that has been presented to you in this case on each of these factors. You may also consider any other factors which in your mind would have increased or decreased the royalty the infringer would have been willing to pay and the patent holder would have been willing to accept, acting as normally prudent business people. The final factor establishes the framework which you should use in determining a reasonable royalty, that is, the payment that would have resulted from a negotiation between the patent holder and the infringer taking place at a time prior to when the infringement began.

It is up to you, based on the evidence, to decide what type of royalty is appropriate in this case.

Court's analysis:

The Court adopts Marvell's proposed instruction with the modification above. As discussed in my order on the parties' motions *in limine*, *Georgia-Pacific* factor #11 is "[t]he extent to which the infringer used the invention and any evidence probative of the value of that use." Accordingly, Marvell may point to actual use of the patented method (i.e., "book of wisdom") to inform the reasonableness of the running royalty. Based on that actual use, Marvell can argue for a rate per unit that results in an effective cap (i.e., a total running royalty that does not exceed a particular amount), but the running royalty is still calculated on a per unit basis. Allowing the jury to disregard the total number of sales would improperly conflate the lump-sum and the running royalty. To the extent my order on the parties' motions *in limine* did not address this particular issue directly, this analysis supplements that order.

France Telecom's proposed instruction omitted explanations of the lump sum and running royalty concepts. Explaining those concepts is helpful to the jury.

FINAL JURY INSTRUCTION NO. 43**DAMAGES—AVAILABILITY OF NON-INFRINGEMENT ALTERNATIVES**

One of the factors that would have been considered during the reasonable royalty hypothetical negotiation is the availability of acceptable non-infringing alternatives to the patented technology. Not all alternatives are acceptable non-infringing alternatives. To be an acceptable non-infringing alternative, the alternative must have been acceptable to both the party and its customers. Also, the alternative must have been available to the party, meaning the party must have had the capability of implementing the alternative. However, an acceptable non-infringing alternative need not have actually been produced, marketed, or sold during the period of infringement, so long as it was available to the party. To determine whether there were acceptable non-infringing alternatives, you may consider the following:

- (1) Whether the alternative was available around the time of the hypothetical negotiation;
- (2) Whether the effects of using the alternative were known in the industry;
- (3) Whether the alternative would have had the advantages of the patented invention;
- (4) Whether customers would have accepted the alternative;
- (5) Whether the party had the necessary equipment, know-how, and experience to implement the alternative; and
- (6) The time and cost to the party of implementing the alternative.

Court's analysis:

Marvell proposes a Non-Infringing Alternatives instruction. France Telecom objects to the instruction as duplicative of *Georgia-Pacific* factor 9, but does not offer any other critiques of the substance of the proposed instruction or propose its own version. *Georgia-Pacific* factor #9 is “[t]he utility and advantages of the patented property over the old modes or devices, if any, that had been used for working out similar results.” That is distinct from a non-infringing alternative, which need not have actually been produced at the time, so long as it was available to the party.

The Court adopts the Non-Infringing Alternatives instruction above, which lays out helpful criteria for determining whether there were acceptable non-infringing alternatives.

FINAL JURY INSTRUCTION NO. 44**DAMAGES—EXTRATERRITORIALITY**

U.S. patent law does not operate outside the United States. Patent infringement damages compensate only for the consequences of domestic activity. Thus, you may not award damages based on the wholly foreign manufacture, sale, offer for sale or use of an accused product that would otherwise infringe if such activity occurred within the United States.

~~France Telecom contends that Marvell Semiconductor has infringed by selling accused products outside the United States that are later imported by third parties into the United States in finished products, such as mobile phones. Only those accused products that are actually shipped into the United States in finished products and then used in an infringing manner in the United States can give rise to damages.~~

Court's analysis:

The Court adopts Marvell's proposed instruction, as modified. France Telecom objects to this instruction as duplicative of instruction 27, but does not critique the substance of the instruction or offer an alternative. Instruction 27 deals with infringement, not damages. Given the extraterritorial issues present in the case, a short instruction regarding damages and extraterritoriality will be helpful to the jury. The stricken portion above is unnecessary as the parties' contentions are provided in other instructions.

FINAL JURY INSTRUCTION NO. 45

DAMAGES—INSTANCES OF DIRECT INFRINGEMENT

If you find infringement, you may award damages only where France Telecom has proved that Marvell Semiconductor or a third party has used the accused method within the territory of the United States. France Telecom must prove the extent of such infringing use with reasonable certainty because the amount of awardable damages must be correlated with the extent the accused method has been used in the United States. ~~Any estimate by France Telecom of how many accused products manufactured abroad are shipped into and used in the United States must be established with some degree of certainty. It cannot be speculative.~~ In other words, you should award only those damages that France Telecom establishes that it more likely than not suffered.

Court's analysis:

The Court adopts Marvell's proposed instruction, as modified. The stricken portion is unnecessary as the prior portion adequately instructs that the damages must be correlated to the direct infringement.

FINAL JURY INSTRUCTION NO. 47**DAMAGES—LACHES DEFENSE**

Marvell Semiconductor contends that France Telecom is not entitled to recover damages for acts that occurred before it filed a lawsuit because: (1) France Telecom delayed filing the lawsuit for an unreasonably long and inexcusable period of time, and (2) Marvell Semiconductor has been or will be prejudiced in a significant way due to France Telecom's delay in filing the lawsuit. This is referred to as laches. Marvell Semiconductor must prove that delay and prejudice are more likely than not. ~~by a preponderance of the evidence.~~

Whether France Telecom's delay was unreasonably long and unjustified is a question that must be answered by considering the facts and circumstances as they existed during the period of delay. There is no minimum amount of delay required to establish laches. If the delay is six years or more, a rebuttable presumption arises that the delay was unreasonable and unjustified, and that material prejudice resulted. This presumption shifts the burden of proof to France Telecom to come forward with evidence to prove that the delay was justified or that material prejudice did not result, and if France Telecom presents such evidence, the burden of proving laches remains with Marvell Semiconductor.

Laches may still be found if the delay is less than six years if you find the delay is unreasonably long and unjustified and that it caused material prejudice to Marvell Semiconductor. Facts and circumstances that can justify a long delay can include:

- (1) being involved in other litigation during the period of delay;
- (2) being involved in negotiations with Marvell Semiconductor during the period of delay;
- (3) poverty or illness during the period of delay;
- (4) wartime conditions during the period of delay;
- (5) being involved in a dispute about ownership of the patent during the period of delay; or
- (6) minimal amounts of allegedly infringing activity by Marvell Semiconductor during the period of delay.

If you find unreasonable and unjustified delay occurred, to find laches, you must also determine if Marvell Semiconductor suffered material prejudice as a result of the delay. Prejudice to Marvell Semiconductor can be evidentiary or economic. Whether Marvell Semiconductor suffered evidentiary prejudice is a question that must be answered by evaluating whether delay in filing this case resulted in Marvell Semiconductor not being able to present a full and fair defense on the merits to France Telecom's infringement claim. Not being able to present a full and fair defense on the merits to an infringement claim can occur due to the loss of important records, the death or impairment of an important witness(es), the unreliability of memories about important events because they occurred in the distant past, or other similar types of things.

1 Economic prejudice is determined by whether or not Marvell Semiconductor changed its
2 economic position in a significant way during the period of delay resulting in losses beyond
3 merely paying for infringement (such as if Marvell Semiconductor could have switched to a
4 noninfringing product if sued earlier), and also whether Marvell Semiconductor's losses as a result
of that change in economic position likely would have been avoided if France Telecom had filed
this lawsuit sooner.

5 In all scenarios though, the ultimate determination of whether laches should apply in this case is a
6 question of fairness, given all the facts and circumstances. Thus, you may find that laches does
7 not apply if there is no evidence establishing each of the three elements noted above (unreasonable
8 delay, lack of excuse or justification, and significant prejudice). You may also find that even
though all of the elements of laches have been proved, it should not, in fairness, apply, given all
the facts and circumstances in this case.

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10 **Court's analysis:**

11 The Court adopts Marvell's proposed instruction, as modified above. France Telecom objects that
12 the instruction is "contrary to law and includes issues that are not for the jury." As discussed in
13 my order on the parties' motions *in limine*, I will present the laches defense to the jury for an
14 advisory verdict. France Telecom does not state how this proposed instruction is purportedly
15 contrary to law and I do not believe that it is.
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FINAL JURY INSTRUCTION NO. 48

DAMAGES—END OF DAMAGES PERIOD

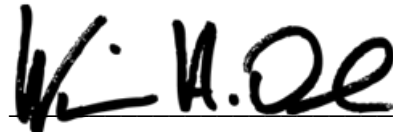
If you find infringement, damages may only be awarded for the period of time up to the patent's expiration date. The '747 patent expired on August 29, 2012, so no damages may be awarded for conduct that occurred after this date.

Court's analysis:

The Court adopts Marvell's proposed instruction. France Telecom does not offer a proposed instruction, nor does it list any objections to this instruction.

IT IS SO ORDERED.

Dated: September 11, 2014

A handwritten signature in black ink, appearing to read "W. H. Orrick", written over a horizontal line.

WILLIAM H. ORRICK
United States District Judge